

have taken eggs very hard-set as early as the 29th of April. This is a rare bird, except in one or two favoured localities; in these it is very common. It does not appear to breed below 2500 feet, and ascends for this purpose up to 5000 feet.

[To be continued.]

V.—*Notes on the Birds of the Central Pyrenees.*

By H. M. WALLIS.

THE following observations were made in May and June 1894, in the district east of Pau and Eaux-Chaudes and west of Luchon and Bagnères-de-Bigorre. A week was spent on the Spanish side of the range in the glens at the foot of Pic Perdu, and the rest of the time was passed on the French frontier. I carried no gun.

1. *TURDUS MUSICUS*, Linn.

I heard the Song-Thrush at Eaux-Bonnes, and again in the Valle de Ara* on the Spanish side, where in the late afternoons it sang cheerily among the pine-woods.

2. *TURDUS MERULA*, Linn.

The Blackbird was noticeable at Eaux-Bonnes and as far up the Gave-de-Pau as St. Sauveur. At Argelès-de-Bigorre I found a nest with five eggs.

3. *TURDUS TORQUATUS*, Linn.

I met with Ring-Ouzels at the edge of the timber-line above Gavarnie. Young birds were on the wing by June 16th.

4. *TURDUS PILARIS*, Linn.

We came upon a single Fieldfare on June 6th in a copse of stunted beeches near the edge of the timber-line above Gavarnie, *i. e.* about 5700 feet above sea-level.

The bird flew over my companion's head, uttering its alarm-note—a call with which he had become fairly familiar during a six weeks' tour in Norway in the nesting-season. He called to me and began hunting for a nest, almost immediately finding one in the fork of a gnarled beech about 4 feet from

* Also known as Valle de Ordesa and Val d'Arazas.—H. M. W.

the ground. This nest agreed precisely with some hundreds of Fieldfares' nests which he and I found in Norway, though placed lower than most. Had I found it at home I should have thought it an unusually low-placed nest of a Missel-Thrush though that bird occasionally builds as low and lower. It was empty, but ready for eggs. On revisiting this nest a week later we found its lining pulled out, apparently the mis-deed of Jays which were nesting near. We saw no more of the Fieldfare. A second nest, like the first in position and materials, but a year older, was in the same copse; both nests were of the materials and architecture usual with the Fieldfare (and Missel-Thrush), very weighty and solidly constructed.

The only other species of *Turdus* seen in the district (not near these nests) was the Ring-Ouzel. I fear that I have left the question as to Fieldfares breeding in the Pyrenees where it stood before.

5. MONTICOLA SAXATILIS (Linn.).

A male Rock-Thrush in full plumage observed on St. Savin above Gavarnie on June 17th. There is a difference in the habits of this and the Blue Rock-Thrush which I cannot remember having seen noticed by anyone but Mr. Seebohm, *i. e.* in their manner of singing. *M. cyanus*, I think, invariably sings seated; he will fly round, "checking" like a cock Blackbird, for half an hour in the sunset before roosting, but for what may be called his song he selects the highest pinnacle handy. The song of *M. saxatilis*, on the other hand, is sometimes delivered on the wing, the artist flying to and fro in short undulating turns along the face of some wooded cliff (such as St. Salvador at Lugano), pouring out a continuous and varied song of great beauty. Under such circumstances, passing and repassing close beneath one's eyes, he is indeed a handsome bird.

A clutch of eggs in the collection at Eaux-Bonnes are labelled as taken in the district.

6. CINCLUS AQUATICUS, Bechst.

A Dipper of some sort is common on the mountain-streams

on both sides of the frontier. I could never get sufficiently good views to decide whether it was the pale-breasted form or not.

7. *SAXICOLA ŒNANTHE* (Linn.).

Wheatears abound in the Pyrenees between the snow-line and timber-line; I found eggs above Gavarnie on June 16th.

On the stony side of the Pic de Gez, above Argelès, I saw some kind of Wheatear which I cannot name; the male was many shades darker than *S. œnanthe*, his back and head being a deep *electric blue*. His mate might have passed for a female of the common species, but showed more russet.

8. *PRATINCOLA RUBETRA* (Linn.).

Whinchats haunt the meadows below Arrens, in the Vallée d'Azun, and also at Bagnères-de-Bigorre, where the grassy country they like runs up into the hills. The Pyrenean Whinchat is so brilliantly coloured that to English eyes it hardly seems the same species as our island form.

9. *PRATINCOLA RUBICOLA* (Linn.).

I saw the Stonechat near Eaux-Bonnes.

10. *RUTICILLA PHŒNICURUS* (Linn.).

A single male Redstart, apparently anxious for the safety of his nest, was flitting about a barn near Arrens on May 28th, about 2800 feet above sea-level.

11. *RUTICILLA TITYS* (Scop.).

Black Redstarts are abundant among the mountains at all elevations, from the chimney-tops of Argelès and Bagnères-de-Bigorre, which are on low ground, to the snow-line. I saw pairs playing about little rocky outcrops near the Brèche de Roland, and others among the Observatory buildings upon the summit of the Pic du Midi de Bigorre, 9440 feet. We found its nest, sometimes as bulky as a Blackbird's, sometimes half the size, in the most varied situations: on a beam in the roof of a staircase having doors above and below; in the wall of a milking-hut; inside a herd-boy's shelter; and on ledges left by the blasting charges along the high road.

12. ERITHACUS RUBECULA (Linn.).

I found the Robin nesting at Argelès-Vieuzac and met with it at Eaux-Bonnes. In the wildest forests of the Valle de Ara its cheery little song reminded one of home; but the bird has not, in the Pyrenees, the friendly habits of the English resident species; it rather shuns human neighbourhood, as one finds it doing in the Bernese Oberland, and resigns to the Black Redstart the place of pensioner and house-mate.

13. DAULIAS LUSCINIA (Linn.).

Nightingales were in full song in the gardens of Argelès-Vieuzac on May 29th. We did not hear them among the mountains nor on the Spanish side until we reached Torla, a little town several miles south of the frontier.

14. SYLVIA RUFA, Bodd.

I met with the Whitethroat at Argelès-Vieuzac on May 28th.

15. SYLVIA ATRICAPILLA (Linn.).

The Blackcap was singing at Eaux-Bonnes in the last week of May, and we heard and saw it daily among the box-bushes on the Spanish side in June.

16. SYLVIA SALICARIA (Linn.).

Garden Warblers were singing at Argelès-Vieuzac. I could not feel sure of either Chiffchaff or Willow Warbler in the Pyrenees. Some lively little birds were abundant in the Valle de Ara which puzzled me by constantly commencing with the cry of the one species and tailing off into the song of the other.

Some other birds, the Chaffinch for example, have Spanish notes very different from their usual English call.

17. REGULUS IGNICAPILLUS (C. L. Brehm).

On May 26th I found Firecrests feeding young at Eaux-Bonnes; the nest seemed similar to a Goldcrest's, and was hung in a conifer close above a public lamp beside the main road. Firecrests were nowhere common. The Goldcrest I did not see, nor was there a skin in the Eaux-Bonnes collection.

18. *ACCENTOR COLLARIS* (Scop.).

The Alpine Accentor is a rather common bird among the loftier Pyrenees, if one goes high enough; I think it prefers the main chain to outlying spurs, even of considerable height. I met with it upon the snow at the Port de Gavarnie, and watched it picking crumbs close to the men's feet at the Observatory upon the Pic du Midi de Bigorre, where it probably was nesting, for it left some hole, which I could not identify, in the loosely-built retaining-wall of the southern terrace. This was on June 21st. I believe a pair were nesting at the top of the Col de Allanz, S.W. of Gavarnie, 8255 feet. Near the summit of Salarou, on the Spanish side, the behaviour of a pair led me to their nest. It was empty, though ready for eggs, and was placed in a crevice into which one's hand passed with difficulty. Superficially it resembled a rather bulky nest of a Hedge-Sparrow, but I could see no green moss about it.

This bird sings better, has more of a voice, and is in every way a finer bird than the next species. When seen close at hand it discovers chestnut flanks and more beautiful feathering than some of its portraits credit it with. Unlike most Pyrenean birds it is rather tame, allowing one to approach it more nearly than the Snow-Finch usually will, or the Water-Pipit. At the Brèche de Tuquerouye (8775 feet) the Alpine Accentors seemed very much at home, although everything save vertical cliffs was under snow.

19. *ACCENTOR MODULARIS* (Linn.).

We saw the Hedge-Sparrow at Eaux-Bonnes, but lost sight of it among the higher valleys on the French side, to find it hatching a nestful of eggs among the box-bushes of the Valle de Ara, between 3000 and 4000 feet above sea-level.

20. *ACREDULA IRBYI*, Sharpe & Dresser.21. *ACREDULA ROSEA* (Blyth).

Some long-tailed Tits with greyish, almost white scapulars, were playing among the trees near the railway-station at

Pau; others, indistinguishable from our form, showing next to no white on the head, I met with at Argelès-Vieuzac.

22. *PARUS MAJOR*, Linn.

23. *PARUS ATER*, Linn.

24. *PARUS CÆRULEUS*, Linn.

Our three common Tits were present in the wooded regions. The Great Tit at Eaux-Bonnes, the Cole Tit at St. Sauveur, and both in the Valle de Ara. The Blue Tit we did not notice across the frontier; we found it nesting at Argelès and St. Sauveur.

25. *PARUS CRISTATUS*, Linn.

Fairly common among the tall pines and spruces of the Valle de Ara and the yew trees above Bucharo. Surely the Crested and Cole Tits are more nearly akin than the other species. They are much given to hunting in company, and in a dusky pine-wood or in thick weather they are not easily distinguished.

26. *SITTA CÆSIA*, Wolf.

One could frequently hear and sometimes see the Nut-hatches among the tall timber around Eaux-Bonnes and in the Valle de Ara.

27. *CERTHIA FAMILIARIS*, Linn.

The Creeper was seen at St. Sauveur and in the hotel garden at St. Bagnères-de-Bigorre.

28. *TICHODROMA MURARIA* (Linn.).

The only Wall-Creeper we saw was at the upper end of the Valle de Ara, say 6500 feet. It was well described to me by others who knew the district, so I suppose it is not uncommon.

29. *TROGLODYTES PARVULUS*, Koeh.

One could hear Wrens singing at all hours of the day among the woods at Eaux-Bonnes and in the Valle de Ara.

30. *MOTACILLA ALBA*, Linn.

I saw the White Wagtail, which is not essentially a

mountain bird, as far up the Gave-de-Pau as St. Sauveur, say 2525 feet.

31. *MOTACILLA MELANOPE*, Pall.

The Grey Wagtail is the bird of the mountains, and I find "*ubique*" marked against this species on my list. It is particularly fond of waterfalls and narrow inaccessible glens and "races." A pair had a nest over the fall at the back of my hotel at St. Sauveur; the visits of the male began and ended only with daylight; he would send his call-note before him as he came undulating over the house-tops, and was so full of energy that once in a dozen journeys he must needs recreate himself with dancing a kind of aerial "breakdown," towering vertically in successive leaps with abundant action of the tail, singing the while with considerable execution.

32. *ANTHUS TRIVIALIS*, Linn.

A single Tree-Pipit was singing in a tree beside the road between Larruns and Eaux-Bonnes on May 26th, but we saw this species nowhere else. The Meadow-Pipit escaped me altogether.

33. *ANTHUS SPIOLETTA*, Linn.

The Water-Pipit is the common Pipit of these mountains, and one hears and sees it everywhere upon the bare grassy uplands beyond the forest-line. I have watched pairs running upon the snow far from any herbage. On June 14th and 16th eggs were found, much incubated, above Gavarnie, at an elevation of not less than 6000 feet, and a third on June 21st on a southern spur of the Pic du Midi de Bigorre, at about the same elevation. These nests, placed, like those of a Meadow-Pipit, in a hollow beneath a tussock of grass overhanging a path or watercourse, were entered by small mousehole-like apertures, the outer wall of the nest being formed of coarse grasses, of which the knotted roots, with pellets of earth adhering, were cunningly left exposed. These nests would be impossible to find if the parent birds would sit close. My eggs vary in size and colouring within much the same limits as those of the Rock-Pipit from Donegal, but have a stronger ink-mark. I could not tell them from

Rock-Pipit's eggs. The birds at the nest are wary and vociferous.

34. *LANIUS COLLURIO*, Linn.

A male Red-backed Shrike was seen at Gèdre, in the Gave de Gavarnie, on June 4th, 3265 feet.

35. *LANIUS POMERANUS*, Sparrm.

On May 31st a male Woodchat in fine plumage dropped out of a thorn-bush upon some insect in the road below St. Sauveur and retreated with a beetle into thick covert; 2300 feet. On June 7th we saw a second in a spinney of box below Bucharo, on the Spanish side; say 4200 feet.

36. *MUSCICAPA GRISOLA*, Linn.

The only Spotted Flycatchers I recognized were at Bagneres-de-Bigorre on June 24th among the trees of the riverside boulevard, 1800 feet above sea-level.

37. *HIRUNDO RUSTICA*, Linn.

The only Swallows we saw were at Arrens, in the Vallée d'Azun, on May 28th, about 2800 feet above sea-level.

38. *CHELIDON URBICA* (Linn.).

On May 28th a little cloud of House-Martins were enjoying the sunrise among the cliffs at the upper end of Vallée Valentin, above Eaux-Bonnes (3600 feet). Next day we saw more at Argelès-Vieuxzac, and met with the species again in company with the Crag-Martin at the extreme end of Valle de Ara, under the Pic Perdu, about 7000 feet. To what height will the species go? I remember coming upon a row of nests under an overhanging cornice whilst climbing (unsuccessfully) for an Eagle's nest, far above the forest-line, in the Dovréfjeld. Between St. Sauveur and Gèdre, in the precipitous glen leading to Gavarnie, a numerous colony of House-Martins breed, especially using the spaces between stone corbels supporting string-courses on the new bridges.

39. *COTILE RUPESTRIS* (Scop.).

I saw Crag-Martins playing around the Pic de Bergons, 6700 feet, on June 1st, and observed them later at Gavarnie. We

found them nesting under unapproachable cornices at various points along the Valle de Ara in Spain, from 7000 to 7500 feet above sea-level.

40. *CARDUELIS ELEGANS*, Steph.

We met with the Goldfinch at Arrens in the pleasant Vallée d'Azun (2800 feet) on May 28th, and again at Argclès-Vieuzac.

41. *CHRYSOMITRIS CITRINELLA* (Linn.).

In the Valle de Ara in early June a pair of Citril Finches were our daily visitors, occasionally perching upon the gable or upon the hurdles of the sheep-fold, and permitting one to approach within seven or eight yards while they picked dandelions to pieces close to the door of our hut; the male constantly uttering his thin metallic chirrup, like the chink of small silver coins. They seemed to be nesting close at hand, and were the only sociable species in the valley; Robins, Thrushes, and Wrens alike keeping to impenetrable cover.

42. *SERINUS HORTULANUS*, Koch.

On May 26th I found a Serin sitting upon three eggs in a conifer beside the highroad near Eaux-Bonnes. This nest is very small and flat, was placed some 15 feet from the ground upon the fork of a horizontal limb, was quite invisible from below, and at one yard's distance seemed only a chance accumulation of needles. The outer wall is of dry roots; the cup is of horse- and cow-hair, with two Woodcock feathers. The eggs resemble a Goldfinch's, but are smaller. When first found the hen was sitting; she left the eggs at the call of her mate, who summoned her to be fed with a prolonged delicate trill. When I ascended the tree an hour later he was sitting, and sat very close. I mention these details as I found the nest very difficult to discover, although the birds abound in every orchard, square, and garden throughout the Pyrenees, from the hotel grounds at Eaux-Bonnes up to the high timber in the Cirque de Gavarnic at the extreme limit of forest-growth, say 6000 feet, where I found a deserted nest with one egg.

This little bird has some points, probably merely superficial, in common with the Greenfinch—so many, in fact, that it has frequently seemed to me a diminutive congener of *Ligurinus chloris*. The distribution of bright colour in the males is similar, some of the call-notes are much alike, and even the wavering, irregular nuptial flight, which I had thought peculiar to the Greenfinch, is precisely reproduced by the male Serin. The nests and eggs, allowing for differences of size, are curiously alike in position and materials, shape and colouring. The cock Serin is the most invisible of any bird I know; he can sit between two green leaves, himself seeming a third, and sing for five minutes whilst you vainly try to distinguish him with the binoculars.

43. LIGURINUS CHLORIS (Linn.).

I saw a Greenfinch in the hotel garden at Bagnères-de-Luchon (2065 feet), and nowhere else throughout the Pyrenees.

44. MONTIFRINGILLA NIVALIS (Linn.).

One may count upon Snow-Finches among outcrops of splintered rock above the snow-line. At the watershed of the Port de Gavarnie, on the Pic Perdu, among the rocks at the Col de Allanz, and on the summit of the Pic du Midi de Bigorre I enjoyed a dozen opportunities of watching this hardy little bird. Nothing in its behaviour pointed to nesting having begun on June 21st. Though pretty generally distributed among the higher Pyrenees, it seems a less successful species there than at certain places in the Bernese Oberland, where one may watch flocks of a hundred wheeling, twittering, and performing aerial evolutions more like Dunlins than Finches. The men at the Observatory upon the Pic du Midi assured me that the *Pinson de neige* did not nest until July.

A Rock-Sparrow is in the collection at Eaux-Bonnes; the skin is neither named, dated, nor localized, but I may as well mention it, as all the skins there that are named seem to have been locally obtained, except perhaps the Black Grouse, and that may be found there also for aught I know.

45. *PASSER DOMESTICUS* (Linn.).

The House-Sparrow was in evidence at the village of Arrens (2800 feet). We saw it nowhere else.

46. *FRINGILLA CŒLEBS*, Linn.

The Chaffinch is one of the commonest—perhaps the commonest—bird of the Pyrenees. I noticed it among the beech-forests at Eaux-Bonnes and Barèges and in the pine-woods of the Valle de Ara. Throughout these mountains it uses certain very distinct call-notes which I never heard in England. On June 3rd I found a nest ready for eggs in one of the lateral glens (about 4000 feet) above St. Sauveur.

47. *LINOTA CANNABINA* (Linn.).

Only at Eaux-Bonnes was I sure of the Linnet; there upon the furzy hillside to the north of the hamlet we found its nest and hard-set eggs on May 27th. In the Eaux-Bonnes collection are a pair of small dull-coloured Linnets (without names, dates, or localities), having faint yellow rumps, but otherwise resembling Twites.

In the same collection are Bramblings in winter-plumage.

48. *PYRRHULA EUROPÆA*, Vieill.

At Eaux-Bonnes and Argelès-Vieuzac we saw the Bullfinch. At St. Sauveur, where three fourths of the hotels had not opened by June 1st, and things were consequently quiet, the Bullfinches were hunting the *Escallonia*-bushes set in their tubs on the side-walk before the *salle-à-manger*, a diversion more suited to the London Sparrow than to this wary bird.

49. *EMBERIZA MILIARIA*, Linn.

The Corn-Bunting was seen around Argelès-Vieuzac, 1525 feet.

50. *EMBERIZA CITRINELLA*, Linn.

The Yellow-Hammer takes the place of the Sparrow as street-scavenger at Eaux-Bonnes. Whether the Sparrow comes up with the crowd when the season opens I cannot say, but until the end of May *E. citrinella* and the Chaffinch had no competitors. We saw this species throughout the

French Pyrenees at all moderate elevations, but missed it among the wooded glens on the Spanish side.

51. *EMBERIZA CIA*, Linn.

Common in the hedgerows around Eaux-Bonnes. We lost sight of it on leaving the cultivated parts of the valley, and did not recognize it at Argelès-Vieuzac or elsewhere. This bird is very like the last species in its habits, and its appearance on the wing or when perching suggests a case of partial albinism in a Yellow Bunting, the yellow of the head and neck being replaced by dirty white, but the note is quite distinct.

52. *ALAUDA ARBOREA*, Linn.

On June 7th I saw a Wood-Lark among rocks and snow at the summit of the Port de Gavarnie, 7485 feet.

53. *ALAUDA ARVENSIS*, Linn.

On May 28th a single Sky-Lark was soaring above the grassy downs near the Col de Saucède, about 5000 feet. I do not think this species can be common in the Central Pyrenees, for neither on the sheepwalks above and below Eaux-Bonnes, nor in the meadows around Argelès-Vieuzac, nor on the grassland about Torla, on the Spanish side, did we see or hear it.

54. *PYRRHOCORAX GRACULUS* (Linn.).

55. *PYRRHOCORAX ALPINUS* (Koch).

We saw Red-billed Choughs on both sides of the frontier. The well-known colony near St. Sauveur is still numerous, and, I should think, likely to remain so. There are about 20 nests placed in inaccessible crevices in the sides of a narrow wooded gorge. All are below the level of the road, which winds along towards Gavarnie. The mountain-walls seem almost to meet overhead; the swift river, hundreds of feet below, fills the whole bottom of the cañon, which seems only a gunshot in width. The sheer cliff-sides of the gorge were hung with clematis and radiant with the wonderfully rich flora of the Pyrenees, *Ramonda* blooming in every crevice. The birds, secure in their unapproachable fastness,

were somewhat confiding, and as playful and adroit as Choughs always are, descending the narrowest part of the abyss with one headlong plunge from the upper regions over our heads, a dozen at a time, like a shower of meteorites. There is another colony in a similar situation at the lower end of the gorge just above Pierrefitte. On the Spanish side I found the Red-billed Chough abundant among the astonishing cliffs of the Valle de Ara. I did not find the spot or spots where they breed, which is not surprising when one reflects upon the 40 miles of cliffs which this and the adjoining valley can show, seldom less than 1000 feet, and frequently 3000 feet high, and abounding with every kind of cleft, cranny, and cavern.

The Alpine Chough is, for some reason, much commoner in the Pyrenees than the Red-billed species, which it overlaps both in range and elevation. We found it in the Vallée Valentin near Eaux-Bonnes and at the Col de Torte, at Argelès and St. Sauveur, and the whole length of the Gave-de-Pau and its tributary glens up to the Cirque de Gavarnie. A colony in the cliffs of the Brèche de Roland (9500 feet) was very vociferous, and when upon the summit of the Pic Perdu (11,000 feet) I heard this bird crying overhead in the cloud. There is a colony on the Pic du Midi de Bigorre. It seemed equally common on the Spanish side; mixed flocks of the two species were seen daily in the Valle de Ara and elsewhere. I noticed no racial antagonisms.

Whilst upon a rough mountain-side above Gavarnie we saw a Hawk or Falcon (perhaps male Peregrine) pursue and clutch an Alpine Chough and descend with extended wings, parachute-wise, gripping its shrieking prey. The aggressor was so nearly the same size as his victim that we had thought the affair a romp of a pair of Choughs until the final grip.

Whilst hunting for beetles I have had Choughs similarly engaged walking within about twenty yards of me. They are wary birds, but very inquisitive; at the Wengern Alp Hotel last year one entered the *salon* by one window, made the tour of the room, perched upon the book-case, and left by the other window, squawking.

56. *GARRULUS GLANDARIUS* (Linn.).

The Jay is common everywhere on the French side from the forests of the foot-hills to the last stunted beech-scrub below the snows of Gavarnie, where we took fresh eggs on June 6th within a few yards of the timber-line (5600 feet). I cannot recall seeing it across the frontier, nor can my companions.

57. *PICA RUSTICA* (Scop.).

The same remarks apply to the Magpie. We found young birds on the wing early in June on the rocks above Gavarnie (5100 feet). We have no recollection of it on the Spanish side.

58. *CORVUS CORONE*, Linn.

Carrion-Crows were feeding young birds in an inaccessible nest in the wooded gorge above Eaux-Bonnes on May 25th. We also saw Crows at St. Sauveur and in Valle de Ara, but nowhere observed Hooded Crows or the hybrid birds which are so common in Tyrol.

59. *CORVUS CORAX*, Linn.

I did not find "les grands corbeaux des montagnes" common in the Central Pyrenees. We recognized them at Eaux-Bonnes, at St. Sauveur, and on the Pic du Midi de Bigorre, where they were misbehaving themselves sadly. Because the Griffons would not allow them a cut in at a dead sheep they wantonly annoyed a fine Imperial Eagle, who had apparently eaten all he could carry and only wanted to be let alone. The Ravens attacked him out of pure wantonness, driving the magnificent old fellow from one seat to another, until a plucky little Peregrine, who, not caring for high mutton, took up the case on public grounds and beat off the Ravens as nuisances. Indeed, he would take no denial, and could have thrashed half a dozen, as I once saw a single Peregrine do near the Lizard. Up, up he went, light as a rising bubble, turned over and stooped upon the nearest Raven with the rush of a cricket-ball. After two or three near brushes the aggressors made off complaining. *Aquila adalberti* settled on the bare ground and resumed his interrupted siesta.

60. *CYPSELUS APUS* (Linn.).

Swifts were wheeling above Argelès-Vieuzac late in May. We lost them on entering the narrow gorge above Pierrefitte, missed them at St. Sauveur and Luz and Gavarnie, but found them again over the quaint tiled roofs of Torla, a dozen miles on the Spanish side.

61. *CYPSELUS MELBA* (Linn.).

The absence of Swifts of either species among the mountains on the French side surprised me. Such noticeable birds could hardly be overlooked, for during the last week in May and the first three in June I was daily among cliffs which seemed suited to them, but, whatever the weather, none were there. Even the astonishing pinnacles and minarets of creviced limestone in the Valle de Ara were untenanted, save the Salarou, around the dizzy summit of which a pair of Alpine Swifts were wheeling, with their nesting-hole a thousand feet below. From the woods beneath it seemed near the top; from the top it appeared in the basement; it would be difficult to visit. The pair seemed unused to visitors and swept in narrow rings around my head, like rushing bullets.

Among the Common Swifts circling above Torla church I noticed a pair of *C. melba*.

62. *CAPRIMULGUS EUROPÆUS*, Linn.

I saw a Nightjar at St. Sauveur, and another in Valle de Ara, about 5000 feet.

63. *PICUS MARTIUS*, Linn.

I had never the luck to see the Great Black Woodpecker, although I suspected its neighbourhood from seeing how roughly some of the timber in the Valle de Ara had been handled. The morning I left the valley I noticed a noble spruce perforated by rectangular holes, much too large for any other European Woodpecker, supposing other species to cut square holes.

64. *GECCINUS VIRIDIS* (Linn.).

We saw Green Woodpeckers near Argelès-Vieuzac and elsewhere on the French side. The cry of some Woodpecker

in the Valle de Ara was very like the note of this species, but I could get no view of the birds.

65. *CUCULUS CANORUS*, Linn.

The Cuckoo is common on both sides of the central range up to the timber-line.

66. *GYPS FULVUS* (Gmel.).

The Griffon is *the* Vulture of the Central Pyrenees, but I do not think it is much in evidence among the foot-hills and forests, though I fancy that it would turn up quickly enough if carrion in any quantity were exposed. When, from some cause or other—a landslip, I fancy,—about a dozen goats perished in the Valle de Brada this spring, the “Aigles” came in force to the funeral, a native estimating their number at about 70, and a week later I saw no reason to doubt the truth of his account.

West of Gavarnie a glen runs up under the cliffs of Sécugnac, which are very lofty and steep; the last 300 feet overhanging. In these cliffs are sundry vertical fissures, which I was assured were breeding-places of “les Vautours;” and my informant, Célestin Passet, a well-known guide and *chasseur*, is a very “straight” man, though not a naturalist. We twice saw a pair of Griffons circling about this cliff, sometimes following the ins and outs of its face at the level of the fissures, at another time wheeling between us and the foliage below, and displaying the snow-white ruff. I think I saw a pair in the Valle de Ara, and at a fissured cliff above Bucharo, just inside the Spanish frontier, and am sure of others upon the Pic du Midi de Bigorre; but by far the best view I ever enjoyed of large birds of prey was among the foot-hills of the central range at the head of the Val Campan on June 21st. The grassy valley was full of sheep just arrived from the lowlands, a dozen flocks of different breeds and marks, all bleating and weary, with dogs and shepherds at their heels. Something or other had died, and over the carrion a lively dispute was going on. A Spanish Imperial Eagle, three or four Bearded Vultures, a pair of Ravens, and about a dozen Griffons were gobbling, scuffling, leaving, arriving—such a scene! The great birds that only a minute

before had been slowly describing circles in the blue vault overhead, as small as dor-beetles, came dropping down by twos and threes until the little green patch around the carcass seemed paved with drab backs; each new arrival folding its wide wings and changing instantly from the most graceful to the most awkward of creatures.

Griffon etiquette seemed to prescribe that one should feed for, say, three minutes, whilst the rest awaited their turns, sitting around humped in attitudes of attention. The order of the feast was disturbed by the inrush of a great white *chien de montagne*, looking like a bleached St. Bernard, before the onset of which the birds rose as lightly as a puff of feathers, timing their departure to a nicety. When the dog retired the original party, strengthened by new arrivals, settled hurriedly to make up for lost time, and manners went to the winds. Two Griffons would fight and scuttle around one after another at the run or with ungainly hopping, assisted by half-open wings, cuffing and dodging. Whilst this went on the Ravens got a beak in, only to be instantly flapped off by the four-foot-long pinion like a flail. It was like a fowl-run at feeding-time, and meanwhile, close over the heads of the mob of Griffons, the Bearded Vultures were drifting in little figures of eight, buoyant as floating gossamers, sometimes taking a wider turn and kissing and caressing on the wing. I think these were all young birds, with dark brown heads and necks. Their coarse dull plumage reflects no sunlight, and by contrast the Griffon's upper parts looked white.

One could hardly have had a better opportunity for comparing the shapes and actions of the two species. The Griffon sails but seldom flaps; his immensely broad square-cut wings are set forward at the same angle as an Eagle's or Buzzard's, *i. e.* a line drawn from tip to tip would pass clear of the beak to the eye of an observer directly beneath. The wings seem almost as flat and as rigid as the sails of a mill and bounded by the same right lines. So deep are the secondaries that the short square-cut tail projects but little, hardly breaking the line of the wings as the bird wheels.

If the Griffon superficially recalls the Buzzard, the Bearded Vulture reminds one sometimes of a Kite, and again of a Gull. His tail is racquet-shaped, but its length and mobility, and above all the soft easy half-stroke of the wings, the rise and fall, momentary check, hover and pass on, are all very Kite-like. So is the set of the wings, which droop from the shoulder, and are not thrust stiffly forward like a Griffon's. A line drawn from tip to tip would not clear the head to a watcher from below, but would pass at once through the roots of the primaries and behind the undulating lines of the fore edge of the wings. A Griffon draws his head and neck back into his ruff whilst on the wing. A series of attempts to sketch a Griffon soaring recall, when most successful, the sign-royal of Rameses carved on some of the Nile temples.

67. NEOPHRON PERCNOPTERUS (Linn.).

I saw a pair of Egyptian Vultures near Gavarnie on June 6th. One of them, when attacked by a Peregrine, tumbled almost like a Pigeon. A week later another pair were wheeling over Torla. At the Brèche de Roland, 9500 feet, I watched a solitary bird crossing into Spain, flying before the wind at a speed one more readily associates with a hungry Swift than with this leisurely little scavenger. No doubt he had just received information of a dead cat in some hamlet on the Spanish side.

By the white wedge-shaped tail this bird is easily recognized on the wing. I had expected to find it common on the frontier, but our French guides did not know it, either by the name of *Vautour* or *Pélican*.

68. GYPAËTUS BARBATUS (Linn.).

The Bearded Vulture is known to the Pyrenean guides as the *Gypaète*. Célestin Passet killed one near Gavarnie last winter, but our men knew of no place, even by tradition, where it bred in the Hautes Pyrénées. I have already mentioned this bird.

69. BUTEO VULGARIS, Leach.

The Buzzard is common among the wooded foot-hills; one sees them from the château at Pau and at Eaux-Bonnes.

In the cañon between Larruns and Eaux-Chaudes at least two pairs had nests. One crossed the glen over my head carrying something heavy and large; his tail was clapped down tight over it as he worked across to his ledge with short laboured strokes of wing. After crossing the Col de Torte we identified no more Buzzards, but I think some birds seen from the train near Bagnères-de-Luchon belonged to this species.

70. *AQUILA ADALBERTI*, L. Brehm.

Determining the species of an Eagle on the wing is ticklish work, and the field-naturalist's heart warms towards any bird that is at the pains to wear distinctive plumage.

Twice we saw a dark-coloured Eagle splashed with white. Once in the Valle de Ara, whilst following up fresh ibex-tracks among the cliffs, one of these pied Eagles flapped past and was hailed as an "Impérial" by Passet. The other occasion I have already enlarged upon. This bird was many miles on the French side of the frontier. There was a dumb-bell-shaped white patch on the underside of each wing, the rump or root of the tail showed a large expanse of white, whilst the shoulder and fore-edge of the wings were splashed. Our guides said the "Impérial" bred upon the Pic Rouge de Pailla, just inside the French frontier*.

71. *AQUILA CHRYSÆTUS* (Linn.).

Twice between St. Sauveur and Gavarnie we saw brown Eagles, with yellow or tawny napes, and no white markings. These were like the Scotch Golden Eagle in flight, colours, and apparently in size. The style of country was just what the Scotch Eagle likes—lightly wooded crags, heather, and but little snow, none permanent.

We met a shepherd-lad who had taken eaglets from the nest on the Pic de Bergons last year.

72. *ACCIPITER NISUS* (Linn.).

I find I have marked the Sparrow-Hawk as "common," but have only noted Eaux-Bonnes and St. Sauveur as localities.

* [In Spain it nests in trees.—*H. Saunders.*]

In a chemist's window at Argelès-Vieuzac I saw a stuffed Goshawk.

73. *MILVUS MIGRANS* (Bodd.).

Kites were watching the river below Larruns and arriving from Spain by way of Eaux-Chaudes, nine in a string, flying high. This was May 26th. I believe they were Black Kites, although one of those flapping low over the water was rather too large and too red for *M. migrans*. A pair of unquestionable Black Kites haunted the Pic de Gez above Argelès in company with Ravens and Kestrels. They robbed the farmer below of his chickens.

What may be considered the normal range northward of the Black Kite?* I have seen them fishing on the Rhine at Mainz, and in May 1891 one was beating slowly along the tide's edge close to Mont St. Michel.

74. *FALCO ÆSALON*, Tunstall.

On June 7th a solitary Merlin was hunting the broken rocks cropping out through the snow at the watershed of the Port de Gavarnie on the look-out for the Snow-Finches and Water-Pipits.

75. *FALCO PEREGRINUS*, Tunstall.

The birds which I have mentioned as having been seen killing an Alpine Chough, stooping upon Ravens and Egyptian Vultures, were what I should have called Peregrines in England; but the question of species is complicated in the Pyrenees, I understand, by the occasional presence and breeding of some hitherto unidentified Falcon.

I myself saw on the wing over the housetops of Toulouse a Falcon which puzzled me; it was neither Kestrel, Hobby, nor Merlin, was of the make and carriage of a male Peregrine, but seemed a size too small.

There is a stuffed Hobby in the Museum at Eaux-Bonnes.

I have seen plenty of true Peregrines (stuffed) in the

* [Finland and Archangel. Several have been obtained in Normandy. —*H. Saunders.*]

Pyrenees, there can be no reasonable doubt, but in the extreme Eastern Pyrenees there is another large Falcon.

76. *FALCO TINNUNCULUS*, Linn.

I saw Kestrels, apparently breeding, at the château at Pau, others in the cañon on the way to Eaux-Chaudes, others at Argelès and on the Spanish side in Valle de Ara. The species seemed generally distributed, but not common, *i. e.* I should have seen five times as many in the same time spent in the open air in Berkshire, and literally a hundred times the number on the heathery ridges near Gibraltar, where Kestrels are as common as the Sky-Lark is in England. Why Kestrels do not abound in the Pyrenees I cannot imagine, the supply of dor-beetles, grasshoppers, small snakes, and lizards is inexhaustible, and nesting-ledges are abundant enough in all conscience, but the fact remains that one can walk for days without seeing a Hawk of any kind.

I do not consider that this brief list comprises all the species of Raptors one might reasonably expect to see during a passing visit to the Central Pyrenees. In the thick timber of the Valle de Ara I heard the loud clucking of some large bird of prey: said my guide, "That's the one that takes the other birds"—information which I found confirmatory, but insufficient. On another occasion, at the edge of the timber in the Cirque de Gavarnie, I came upon the scene of a recent scuffle, and the ground was strewn with tail- and wing-feathers, which Dr. R. B. Sharpe identifies as those of a young Honey-Buzzard.

77. *COLUMBA PALUMBUS*, Linn.

A few Ring-Doves remain to breed in the pine-forest of the Valle de Ara. Whilst working through thick scrub one gets a momentary glimpse of grey back and banded tail, or, just before the chill of sunset begins, one hears the clap of a wing, a bird sails out over the tree-tops, claps again, and at the summons he is joined by five or six others in a "constitutional" down the valley and back again. I know not what enemy keeps down the natural increase of this species in a forest

which, were it in England, would support its thousands of Wood-Pigeons.

78. *CACCABIS RUFA* (Linn.).

The only time I saw Red-legged Partridge was whilst scrambling over fallen rock in a barren desolate glen at the back of Pic Buderans, say 6000 feet up. A pair of, I think, Bearded Vultures had just passed along the cliff overhead, amidst the silence of all bird-life, and when the glen was relieved of them I caught the chuckling call-note—reminiscent of Suffolk stubbles—from a tumbled scree close at hand. Out came the cock from his crevice, stood erect, stretched his neck and called again, was answered by his mate from some other crevice, and both, spreading their red tails, took wing with a whir.

79. *LAGOPUS MUTUS* (Montin).

A couple of Ptarmigan were burrowing into the edge of the drift upon the top of Pic de Bergons, say 6790 feet, on June 1st. I saw droppings upon the snow elsewhere.

The Capercaillie I did not see. One evening at St. Sauveur I met a heavily-armed young fellow on his way to the pine-forest above Pragnères. He explained his system: he would reach the pines after sunset, lie awake until in the dusk before sunrise he heard "chanter le Coq de bruyère," whereupon he would, &c. As a matter of fact he returned empty-handed, and I was told "que le Coq de bruyère ne chantait pas tous les jours."

VI.—*Additional Notes on Tunisian Birds.*

By JOSEPH I. S. WHITAKER, F.Z.S.*

HAVING this year made another trip in the Regency, and added some interesting specimens to my collection of Tunisian birds, I think it desirable that I should supplement my previous paper with a few more field-notes, and with a list of the species obtained by me this year other than those included in my former list.

* For former notes see 'Ibis,' 1894, p. 78.